USER MANUAL

DorTag IV

Sep **2003**
Revision: 01

I N D E X

INSTALLATION INSTRUCTIONS

READER HEAD LED STATUS:
Orange LED - Normal status, tag not presented
Green LED - Active status, valid tag presented
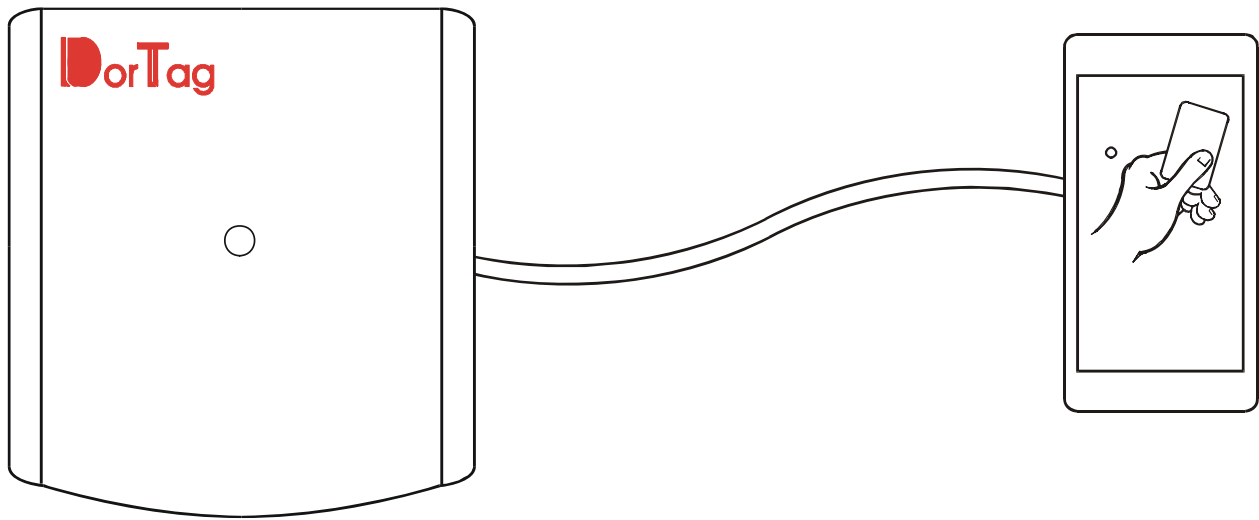
THE READER HEAD

The reader head comes prewired with a 2m cable connected to it. If the cable is to be replaced with a longer cable, care must be taken to observe the polarity wiring on the buzzer.
Wiring from the reader is as follows:

BLUE	**-**	**Buzzer -**
RED	**-**	**Buzzer +**
BLACK	**-**	**CGN**
YELLOW	**-**	**Reader head**
GREEN	**-**	**Reader head**

Note: The LED on the reader head will change from orange to green in colour with every valid tag presented.
Two screws and two wall plugs are supplied with the reader head for mounting onto a wall. The following steps should be followed:

INSTALLING THE READER HEAD

1. Use the **READER HEAD** stencil (on Pg.3) to mark the holes on the wall where the reader is to be mounted. **(Note: The center hole is for the wiring to go through. The other two holes are for the wall plugs and should only be drilled deep enough to accept the wall plugs.)**

2. Once the holes have been drilled insert wall plugs.

3. Mount the reader head and fasten the screws, making sure that the cable is run correctly.

4. Align the LED hole on the sticker with that of the LED on the reader head and apply the sticker to the reader head.

5. A version of this product allowing for the connection of 2 reader heads is available on request.

6. **Installing two reader heads** – It is possible to install two reader heads on this system. Please note that this is a single door system and there is only one output relay. The two heads will therefore be fitted to the ENTRY AND EXIT points on a single door.

7. The two reader heads will be wired in parallel in the controller as per instructions overleaf.

INSTALLING THE CONTROLLER
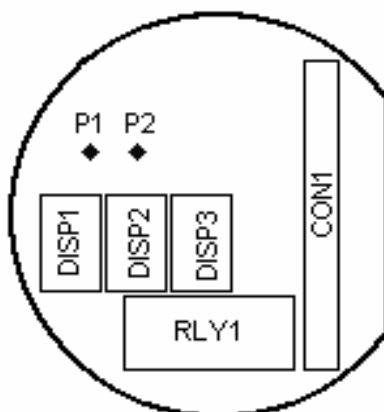
Installation of the controller is slightly different to that of the reader head. Instead of using the reader head stencil, the **CONTROLLER** stencil must be used (also on Pg.3). **(Note: The controller may be mounted in a steel cabinet.)**
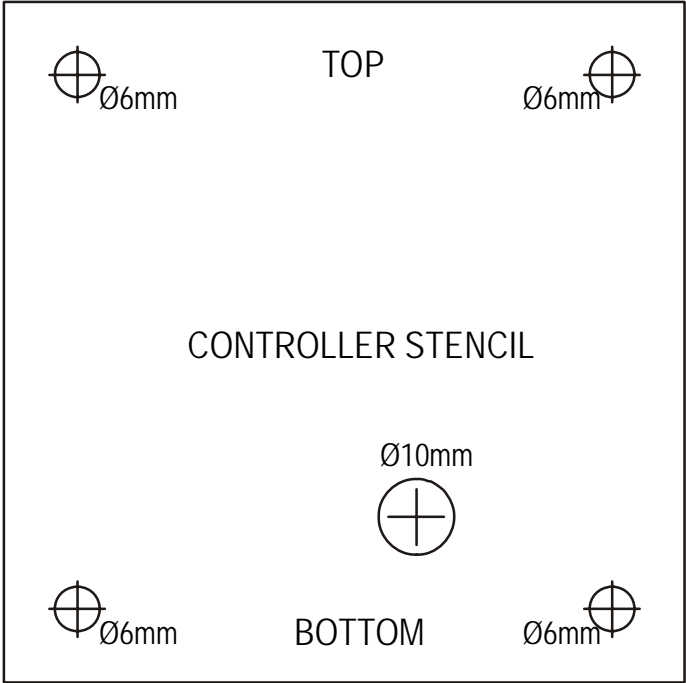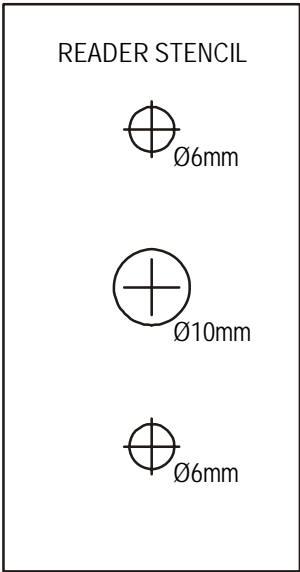
The wiring into the controller is as follows:

POWER	**POWER** - Connect the two power lines to these two contacts (12-24V AC/DC)
CGN	**CGN** - Ground (Black wire)
DO	**DO** - Not used
D1	**D1** - Not used
READER HEAD	**READER HEAD** - Connect reader head loop wires to these two contacts (Yellow & Green wires)
BUZZER -	**BUZZER -** - Buzzer negative connection (Blue wire)
BUZZER +	**BUZZER +** - Buzzer positive connection (Red wire)
AUX INP	**AUX INP** - Relay switching auxiliary input (Short to CGN to activate relay)
RELAY	**RELAY** - Relay normally open contacts

(Warning: Connecting the wires incorrectly may cause permanent damage to the controller)

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DRILLING STENCIL

READER STENCIL

Ø6mm

Ø10mm

Ø6mm

TOP

Ø6mm

Ø6mm

CONTROLLER STENCIL

Ø10mm

Ø6mm

BOTTOM

Ø6mm

PROGRAMMING INSTRUCTIONS

TOP
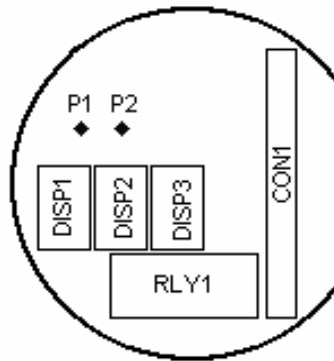
(Note: The DorTag IV Proximity Access Control Reader employs AUTO EXITING software for security reasons.)

In any of the programming modes, the controller will automatically revert back to standard operating mode if the user takes no action within 30 seconds.
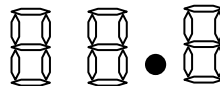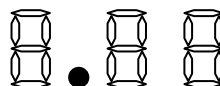Four different operating modes exists, indicated by the display dot position.
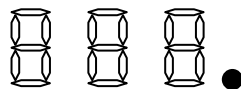
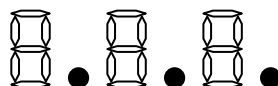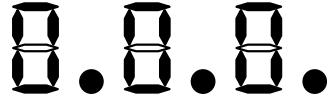|		
POSITION 1		- Standard Operating Mode
POSITION 2		- User Tag Learn Mode
POSITION 3		- Voiding Mode
POSITION 4		- Master Tag Learn Mode

The **USER ACTION** indicates the steps the user must take to accomplish a certain **PROGRAMMING FUNCTION.**
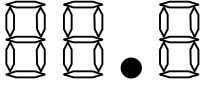
The **CONTROLLER RESPONSE** indicates the response that the controller will have to a **USER ACTION.**

IT IS RECOMMENDED THAT THE USER READ THE USER ACTIONS AND CONTROLLER RESPONSES CAREFULLY BEFORE ATTEMPTING TO PROGRAM THE CONTROLLER.
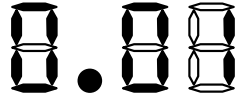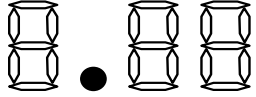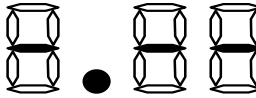
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MASTER TAG - PROGRAMMING INSTRUCTIONS

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Teaching the controller a new **Master Tag**	1. **PRESS & HOLD** button P2 (The right button) (Note: Teaching a new **Master Tag** can only be done in **Standard Operating Mode.**)	The controller display changes to the last card read while pressing this button in **Standard Operating Mode.**
	2. While still holding button P2 press button P1. (The left button) **(Warning: On presenting a NEW MASTER TAG, the entire memory will be voided and all user tags will have to be reprogrammed.)**	The controller will respond with 3 beeps immediately. After releasing buttons P1 and P2, the controller display will light up displaying

8.8.8.

This indicates that the controller is in **Master Tag Learn Mode** and that the first tag to be presented to the reader head will become the new **Master Tag.** |
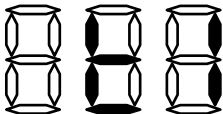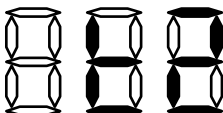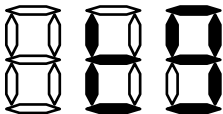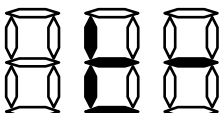| | 3. Present the new tag to the reader. (This tag will become the new **Master Tag.**) | The controller will respond with 3 beeps. This indicates that it has learnt the new **Master Tag** and exited **Master Tag Learning Mode**. The controller is now ready for standard operation. |

USER TAG - PROGRAMMING INSTRUCTIONS

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Teaching the controller a new **User Tag**	1. Present the **Master Tag** to the reader and keep it in the reader field for longer than 3 seconds.	The controller initially responds with a single beep. After a few seconds, the controller responds with an additional 3 beeps indicating that it has entered **User Tag Learn Mode**. 88.8
	2. Remove the **Master Tag** and present the new **User Tag(s)** to be learnt one at a time to the reader.	1 second after presenting a new **User Tag**, the controller will respond with a single beep. This indicates that the controller has learnt the new **User Tag**. **(Note:** Should the controller respond with 3 beeps instead, it is indicating that the 1000 user limit has been exceeded and that the controller has exited **User Tag Learn Mode.)**
	3. After teaching the controller the new **User Tag(s)**, present the **Master Tag** to the reader again to exit **User Tag Learn Mode**.	The controller responds with 3 beeps indicating that it has exited **User Tag Learn Mode**. **(Note:** Should the user forget to exit **User Tag Learn Mode,** the unit will automatically exit this mode after 30 seconds.) **Note:** After completing this procedure, present each tag to the reader, press button P2 on the controller to display the tag number and record this number against the name of the user in a register. Repeat this exercise for all the new tags entered into the system.

Note: Should an invalid card or tag be presented to the DorTag IV the unit will not respond with a beep, the LED will remain orange in colour and no user number will appear on the controller.

USER TAG - VOIDING INSTRUCTIONS

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Voiding **User Tag(s)**	1. Present the **Master Tag** to the reader and keep it in the reader field for longer than 3 seconds.	The controller initially responds with a single beep. After a few seconds, the controller responds with an additional 3 beeps indicating that it has entered **User Tag Learn Mode**.
	2. Press button P1 (The left button on the controller)	The controller responds with 3 beeps and after P1 is released, **8.88** is displayed. This indicates that the controller has entered **User Tag Voiding Mode**.
	3. Press button P1, (The left button), to scroll to the **User Tag** number that has to be voided from the system. (Note: By holding button P1 in, the scrolling speed will increase.)	The number displayed on the display is the number of the **User Tag** that will be voided from the system when button P2 is pressed.
	4. To void a **User Tag** from the system, **PRESS & HOLD** button P2 (the right button).	When voiding a **User Tag,** the controller responds with a single beep and the display changes to **8.88** (Note 1: The display shows the memory location to be voided. If **8.88** is displayed, that location has been voided. If the display is incremented to that memory location again, the location number will be displayed again but no code will be stored .) (Note 2: The **Master Tag** memory location can not be accessed unless the whole memory is voided. See **Master Tag PROGRAMMING INSTRUCTIONS.)**
	5. To exit **User Tag Voiding Mode**, leave the controller for 30 seconds.	The unit responds with 3 beeps and enters **Standard Operating Mode.**

DORTAG III – RELAY TIME PROGRAMMING INSTRUCTION

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Adjusting the **Relay Output Time**	1. Press P1 and release	Unit responds with **3 Beeps** and shows
	2. Continue pressing P1 to increment the timer	The display increments up to
		(**2 seconds**), up to
		(**9 seconds**)
		This is a special setting for a **150mS PULSE OUTPUT**
	3. Leave the unit for 30 seconds to exit this **MODE.**	The unit responds with 3 Beeps and enters **Standard Operating Mode.**

DORTAG III – LAST TAG READ INSTRUCTION

PROGRAMMING FUNCTION	USER ACTION	CONTROLLER RESPONSE
Looking for the **Last TAG** read	1. In **Standard Operating Mode** press and hold P2	The number of the last **TAG** read will be displayed.
	2. Release button P2	

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DORTAG IV TECHNICAL SPECIFICATIONS

HARDWARE

Operating Voltage	**12 – 24V AC/DC**
Average Current Consumption	**33mA**
Maximum Current Consumption	**55mA @ 12V**
	35mA @ 24V
Relay Output Rating	**24V / 5A Change over contacts**
Operating Frequency	**125kHz (50Hz – 4kHz modulation)**
Read range	**6cm – 11cm (Dependant on tag type)**
Reader heads	**1**
Read head feeder cable length	**2m Standard, 5m max if unshielded,15m max if shielded.**
Cable	**5 Core**
Mechanical dimensions	**Controller - 104mm(L) x 94mm(W) x 25mm(D)**
	Reader head – 75mm(L) x 39mm(W) x 15mm(D)
Environmental Rating	**Controller – IP00**
	Reader head – IP54
Mass	**Controller – 70g**
	Reader head – 70g
Operating temperature	**-10°C to +60°C**
Indications	**Visual – Bi Colour LED**
	Audible - Buzzer

(* The unit communicates with signals between 50Hz and 4kHz and should thus be installed away from any such signals.)

SOFTWARE

Users	**1000 max**
Code Size	**64 bits**
Read Time	**< 2 seconds**

SPECIAL FEATURES

- Auto frequency tracking
- Auto exiting software
- Master tag learn mode
- Master tag voiding
- Individual tag voiding
- Entire memory voiding
- Auxiliary push button input
- Last tag read display
- Programmable relay output time (150ms – 9 seconds)